# 1. Bully

**Program Name: Bully.java          Input File: bully.dat**

There is a bully in school named Castanon. Every day you bring a Beetleborg toy to school he smashes it to pieces. But thanks to the advances of modern technology, this brand of toy is made of interchangeable parts and can be reconstructed from broken parts. Sometimes, the damage is so great that the toy cannot be put together again from the original pieces. However, there is a special property of this toy, a single Beetleborg can be constructed from R destroyed Beetleborgs. So you can always build a Beetleborg as long as you have enough parts, and you are determined to bring a Beetleborg to school each day as long as you have a Beetleborg at home. Castanon is equally determined to destroy the one Beetleborg that you bring until you run out of Beetleborgs.

## Input
The first line of input contains T, the number of test cases that follow. The next line contains a number B, the number of Beetleborgs you start with, followed by a space, and a number R, the number of destroyed Beetleborgs it takes to build a new one.

## Output
For each test case, print the number of Beetleborgs destroyed.

## Constraints
```
1 <= T <= 100
1 <= B <= 1x10^8
1 <= R <= 1x10^3
```

## Example Input File
```
3
3 2
2 2
5 4
```

## Example Output to Screen
```
5
3
6
```